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## **Youth and Mental Health: Work Projects in Urban Green Space**

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### **ABSTRACT**

Thousands of youth participate in forestry and urban greening projects in the United States. Communities are improved, and youth gain benefits. Youth development and mental health research is reported.

### **INTRODUCTION**

Thousands of adolescents and teenagers participate in forestry and greening projects in U.S. cities. Projects span the landscape gradient from the inner city on out to suburbs, rural areas and wildlands. Activities include trail building, tree planting, ecosystem restoration, habitat creation and parks maintenance. Youth participate as volunteers, are employed, or are assigned by counselors or court.

Nature service projects often have two purposes. Improving the landscape and ecology of a community or site is one goal. Creating positive influences for young people is another. Program managers, field leaders, scientists and program sponsors have observed remarkable changes in project participants. Most accounts of change are anecdotal. More quantitative evaluation measures are needed.

A research project is being conducted in the Pacific Northwest to evaluate, using multiple measures, the psychological, sociological, and transition-to-adult benefits associated with youth working in nature programs. The first phase of the research is a literature review to explore the role of nature experience in youth development. Highlights are presented.

### **SCIENCE OF YOUTH DEVELOPMENT**

Development, as used in this context, is about the psychological dynamics of emerging self-concept, personality, values and character. These progressions are mediated by a youth's relationship to household members, peers and social groups, community, and society. Change takes place through a constant process of interaction, formation, and resolution. Development during the adolescent period is both transitional (from child to adult) and formative (owing to rapid physiological change of body and mind).

The specifics of youth development fill many books and articles. We propose two general dimensions of scientific literature regarding nature and development (Figure 1).

**Figure 1: Model of youth development literature**

<b>Psychosocial</b>		<b>Bridge</b>	<b>Nature experience/therapy</b>	
abnormal or pathological development	positive youth development	nature is integral to positive youth development	development is primary goal	benefits are secondary or inferred

## **PSYCHOSOCIAL DIMENSION**

Studies of adolescence appeared soon after the year 1900. In association with the expansion of the U.S. public education system and other institutions that serve youth, a wide range of studies has been done to analyze the processes of youth development. This mature work, conducted by scientists and institutions around the world, has crystallized into comprehensive concepts. Measurements have been developed and fine-tuned.

### **Abnormal or pathological development**

While social science about youth has helped us understand the general phases and process of development, much of the early work focused on the dysfunctional traits of youth. Though young people who experience or cause trouble and difficulty are in the minority, their concerns have received the most study. Many publications describe the abnormal or pathological aspects of youth, attempting to define and categorize dysfunctions. Tools have been developed for diagnosis. Intervention, therapy and treatment practices are numerous.

Learning issues, such as hyperactivity, attention-deficit, or cognitive difficulties are one class of abnormal behavior. Another group of disorders includes chronic issues that can hinder normal development, such as eating and sleep disturbances, depression, anxiety or negative moods. A final group of issues are pathological behaviors that may be destructive to self and others, such as aggression, substance abuse, or suicide.

### **Positive psychology**

Recently the youth psychology focus has moved from the diagnosis and classification of disorder or disability, to exploration of the competence of young people, and better understanding of the factors that promote mental health and effective functioning. The fields of psychology and psychiatry have long been pathology driven, steering clinicians and researchers to a negative outlook on adolescent assessment (Merrell 2003). Social scientists now seek to balance the scales between positive and negative behaviors. There is growing interest in the notion of "positive psychology."

Positive psychology seeks to address not how things go wrong, but how they can go right (Larson 2000, Roberts et al. 2002). There is increasing research on "the pathways

whereby children and adolescents become motivated, directed, socially competent, compassionate, and psychologically vigorous adults (Larson 2000, p. 170). The approach is to examine the strengths and positive assets of developmental stages, rather than focusing on stressors and potential negative outcomes.

Concepts being studied include self-concept formation, such as processes of how optimism and hope emerge, including capacities for resilience and coping. Of particular interest is how young people transition to becoming productive adults, and includes development of intrinsic motivation, capacity for initiative and work motivation.

There is broad interest in implementing positive psychology practices. A coalition of health agencies and foundations issued a report in 2002 (GIH), reporting on effective approaches for promoting healthy decision-making by adolescents. Acknowledging that young people develop within complex social contexts, the Search Institute (2000) promotes science-based "developmental assets," the building blocks that help young people grow up to be healthy, caring and responsible.

## **NATURE EXPERIENCE/THERAPY DIMENSION**

Returning to Figure 1, we now consider the literature on youth and nature experiences. Assessments of nature program participants appeared in the 1970s, much later than the mainstream psychological literature. Nonetheless, similar themes have appeared. Nature work and experience has been used as a therapeutic intervention, helping young people who are in trouble to realign their lives and gain greater clarity about who they are. Also, many claims (some scientifically confirmed) are made about the key role of nature experience in healthy human development.

### **Nature benefits inferred**

One can watch a young person being active in a natural outdoor setting and sense that it is a positive experience. Early accounts from environmental education and nature programs describe benefits, sometimes with great eloquence. Observed benefits, such as individual growth and self-awareness, occur when children have opportunities to freely explore, feel, and listen to nature (Van Matre 1974).

Such anecdotal accounts assert how children can experience self-discovery, amazement and wonder. Practical guides offer ideas for program activities, addressing the abilities and interests of children of different ages (Van Matre 1974).

### **Nature and development**

In 1989 Ewert summarized studies about how the experience of nature, through direct actions, connects to adolescent development. Studies describe physical benefits, such as fitness, cognitive gains (e.g. outdoor skill sets), and more generally, the ability to problem solve and cope with new challenges. Personality benefits include improved self-concept and self-efficacy (Conrad & Hedin 1982, Kellert 1998).

The influence of program settings on outcomes has been studied. Wilderness is favored for many programs because wilderness experiences are unique and intense for most teens (Kellert 1998). Can urban settings provide similar encounters?

Intensity and duration of a program can influence durability of effects. Do developmental changes "stick" so that the nature encounter becomes a significant life experience? Elements of safety, choice, field team support, and challenge level all appear to contribute to the degree and durability of benefits.

Many studies have focused on a singular concept, failing to acknowledge how a behavior type may be integrated into the larger phenomenon of development. Perhaps this niche approach is the consequence of a relative lack of research funding, thus narrowing the scope of the science. In addition, some ideas are promoted for their societal benefits as well as the mental health of an individual. Ecological identity (Thomashow 1996) and ecological literacy (Orr 1992) address the necessity for more people to embrace environmentalism for the sake of our planet's ecological health.

## **BRIDGING THE GAP**

We have arrived at the middle of the model and it is a lonely place! Few studies have formally bridged the gap. One can infer that the experience of nature is indeed integral to positive development, can be used as an effective therapy for some abnormal behaviors, and contributes to the mental health of young people. Remarkably, there is little conceptual or scientific connection between two literature dimensions.

A recent book by Kahn and Kellert (2002) lays the first planks. The biophilia hypothesis is the proposition that "humans have a fundamental, genetically based human need and propensity to affiliate with nature (p. ix)." The book's chapters demonstrate various aspects of young people's affinity to nature, including connections to animals, how children perceive nature, and the importance of access to nearby nature during young peoples' everyday lives.

Contextualism is an emerging strategy of youth development study and assistance (Coleman & Hendry 1999). Contextualism acknowledges that individual differences, an adolescent's resources, and life's circumstances create situations of psychological opportunity or challenge. Early developmental studies focused on unique behavior or response of a single person. Recent studies recognize that context, created by household and family, then friends and peer group is formative.

Yet context rarely includes consideration of nature experience. The use of certain terms suggests recognition of the role of nature. For instance Hoge (1999) writes of "ecology" of development to address context, but doesn't include the natural or built environments in which people interact. An influential book on adolescence by Coleman and Hendry (1999) includes the term "nature" in its title, but makes no mention in its entirety about the role of landscape and the natural world.

Perhaps a contribution of this new research project is to provide insight on how to integrate nature experience with positive psychology practices. This could expand the number of organizations willing to partner on nature work programs, to include schools and counselors, and expand the opportunities for more youth to benefit from the experience of nature.

## **CONCLUSIONS**

A research project is underway in the Seattle (USA) region to develop better understanding and measurement approaches for evaluating youth benefits associated with work in nature and forest settings. The research plan is to develop a collection of measurement approaches, some original and some previously tested, that can be self-administered by nature program staff. Using empirical and quantitative analysis, this package of measures would document mental health benefits.

A foundation of the research is a thorough literature review of youth development studies that both do, and do not consider nature experience. It is important for all program managers and field team leaders to understand development concepts. Being able to communicate about potential mental health advantages for youth will make it easier to recruit sponsors and partners who are concerned about youth development, but typically don't regard nature experiences as being crucial. Kids and teens are important to our country's future. Urban forestry projects can be a powerful contributor to the mental health and positive development of youth in many U.S. cities.

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